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Section 2. Reply to the Office re §102 objections

Applicant respectfully requests the reconsideration of §102 objections raised in the Office Action, based on the following considerations. Examiner suggests that independent claims 1,3-5, 7-9 and 13 in the instant application are rendered obvious by US patent no. 3,835,272 to applicant Wisenbaker issued Sept. 10, 1974 (hereafter referred to as Wisenbaker '272).

Applicant proposes that this suggestion is not correct, especially in view of the claims in the instant application as amended. As made clear in the amended claims, an innovation in the current invention is that the tail section is enlarged in radial dimension by at least 25% at the boundary with the midsection, called the barrel. This immediate change in dimension is important in allowing the user to retain a grip on the flashlight without looking at the flashlight. This is important to users in the military, in police and fire services, and in all environments of low light where the user may need to keep one hand free and his or her attention focused on external targets, rather than on the flashlight that he or she is holding.

Now, Wisenbaker '272 does indeed have a change in radial dimension at the interface between barrel and tail section. But this is not an immediate change of 25%, as required by the claims in the current application as revised. Indeed, the Examiner pointedly measured the diameter of the tail section in Wisenbaker '272 at the longitudinal midpoint. There, perhaps that flashlight has increased 25% in diameter. If so, it is clear that it is much less of an increase at the interface between barrel and tail cap.

In fact, the sloping or conical nature of the tail section in Wisenbaker '272 will not serve to warn the user of the flashlight of the approaching end of the tail. In this sense, Wisenbaker '272 teaches away from the current invention. Due to the gradual increase in size, it would be very difficult for the user to tell where his hand or fingers are in relation to the tail or head unit.

Examiner further suggests that independent claims 1,3-4, 8 and 11-13 in the instant application are rendered obvious by US patent no. 6,467,930 to applicant Frick issued Oct. 22, 2002 (hereafter referred to as Frick '930). Applicant draws the Examiner's attention to Fig. 1 in the Frick '930 patent. From inspection and measurements of this Figure, we again see that the tail section slopes gradually from the



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diameter of the middle barrel to the enlarged portion at a later segment of the tail section (near point 8 in the figure). This is exactly the same sloping design as in all prior flashlights. Once again, this is teaching away from the invention of the instant application. It is subject to the same arguments as the Wisenbaker '272 patent described above.

Examiner further suggests that independent claims 1-4 and 8 in the instant application are rendered obvious by US patent no. Des, 335,192 to applicant Abel issued April 27, 1993 (hereafter referred to as Abel '192).

Now this is a curious flashlight design indeed. Abel seems to have designed a flashlight with two heads. No matter, he still has the gradual sloping from the interface of barrel and tail to an enlarged portion of the tail. For the same reasons as above, this reference teaches away from the current invention.

The beauty and inventiveness of the current invention is that it can be used with one hand, freeing the other, and demanding little attention of the user, with virtually no chance of the user losing his grip on the flashlight, even in darkness and slippery conditions. While various prior art writings teach aspects of these, none teaches the whole package, and none teaches the need for the abrupt increase in radial dimension between barrel and tail, nor barrel to head (although this dimension often is increased due to the use of a parabolic reflector in the head).

Therefore, for all the reasons above cited, Applicant respectfully suggest that Wisenbaker '272 cannot serve as prior art.

Additional arguments for the patentability of the current invention are attached as Appendix 1.



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Section 3. Reply to the Office re §103 objections

Applicant respectfully requests the reconsideration of §103 objections raised in the Office Action, based on the following considerations.

Claims 6, 9, 10-12, & 15 retain the limitations of amended claim 1 (as do all other dependent claims, of course). Thus Applicant suggests that the § obviousness rejections are no longer appropriate in view of the amended claims and the above arguments in Section 2.

Additional arguments for the patentability of the current invention are attached as Appendix 1.



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Remarks

The claims have been amended to remove duplicity and ambiguity, and further limit the claims of Applicant, in addition to reasons cited in Section 2. Claims were further amended to remove objections posed by the Examiner.

Claims 14, 17 & 18 have been modified per Examiner's suggestion to form independent claims.

New Claim 19 was added to further clarify claim 18.

A substitute specification is offered to replace the existing specification. The only change in the new specification is that the phrase "tail cap" is everywhere replaced by the new phrase "tail section". Applicant considers the change more descriptive of the invention. Applicant requests acceptance of the substitute specification. Claims are not included therein, as they are presented separately in Section 1 of this communication.

Every effort has been made to constructively amend each area of the claims and specification in accordance with all of the examiner's observations in the above-referenced Office Action. Accordingly, applicant respectfully requests a timely Allowance in this case.

Respectfully Submitted,

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APPENDIX I.

Brian Puckett Patent Rebuttal to Patent Office Action and Changes to Claims

CLARIFICATION OF PUCKETT'S KEY CLAIMS

The applicant *Puckett* is not claiming simply a flashlight with an enlarged head and tail section. Such flashlights have been seen before, and are not prior art to with respect to *Puckett's* claims, which focus on *providing a secure grip* on the flashlight and *providing improved holstering* of the flashlight.

Puckett's innovation calls for enlarged head and tail sections of *particular configuration*. Specifically, (1) the enlarged head and tail sections are separated by a segment of flashlight body of such length that the fingers of the human hand are locked in place when they grip the flashlight; and (2) the enlarged head and tail are of identical diameter, which provides highly desirable advantages in holstering. A more complete description is provided below and in *Puckett's* revised claims. The applicant knows of no patent claiming such a design, nor of any flashlight using this design.

Puckett's head/body/tail configuration would be valuable on flashlights of any size. However, it is especially valuable on the relatively new, compact high-intensity flashlights increasingly used by the police, military, rescue, emergency services, and outdoorsmen (see applicant *Puckett's* article on such flashlights, enclosed). This is the type of flashlight depicted in *Puckett's* patent illustration.

The great benefit of these compact, high-intensity flashlights is that — compared to standard flashlights that use D, C, or AA batteries — they have a much higher light output than flashlights several times their size or weight, and they are small and light enough to be carried constantly in a pocket or holster by people whose lives may depend on the immediate availability of a light source,

THE PROBLEM WITH COMPACT FLASHLIGHTS

There is a *long-recognized inherent problem* with these small flashlights: their very smallness causes them to be *difficult to hold onto* due to a lack of gripping surface for the human hand. Thus, these small flashlights are easily dropped while manipulating them. That is the reason why these flashlights, unlike large and medium-sized flashlights, are *almost universally provided with a wrist lanyard*.

As noted, compact, high-intensity flashlights are typically used by people engaged in stressful or dangerous work, or who are out in adverse weather conditions, or who may be wearing gloves, or be injured, or fatigued. All of the foregoing work against keeping a secure grip on such a small device, and thus any innovations which help the user hold onto these small devices is of great benefit and importance.

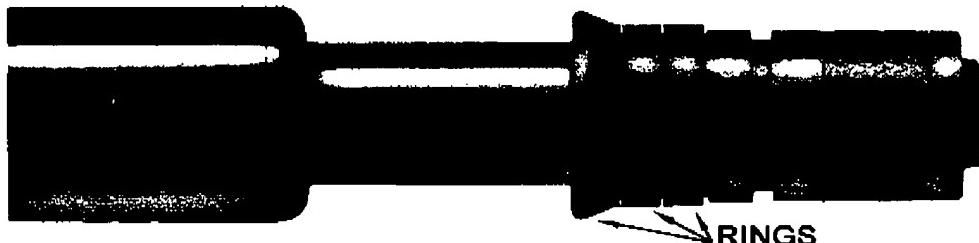
The solution to the problem of holding onto such flashlights is *not trivial*, nor is it obvious even to those familiar with the art of flashlight design. This is shown by the variety of attempts to solve the grip problem, most of which have distinct drawbacks.

For example:

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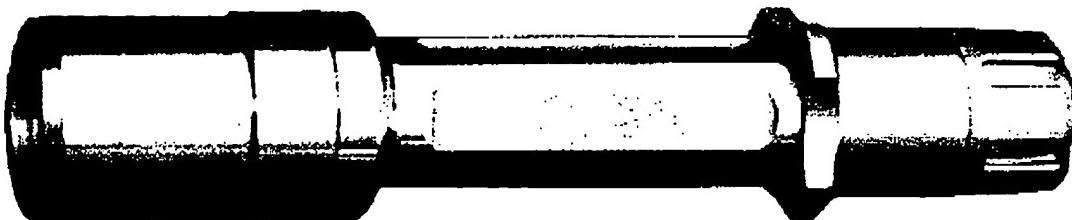
- (1) One method of enhancing the ability to hold onto small flashlights is shown in the *Matthews* flashlight patent (5,642,932). This provides a reduced body diameter that holds in place one or more rubber rings that enhance the user's hold on the flashlight and permit holding it in non-standard ways (see SureFire Z2 illustration below). This works well, but, this design requires the use of elastomeric material that can degrade when exposed to certain solvents and sunlight, and may eventually have to be replaced.

Furthermore, in order to provide a holster that can accept the *Matthews* flashlight either head-first or tail-first, this holster must be complex in design (see *Matthews* holster patent 5,593,074). It should be noted that with this holster, holstering the flashlight head-first leaves a great deal of the flashlight body projecting from the holster, where it may press into the user's body or catch on things (see Matthews patent illustration Fig. 4). With *Puckett*'s innovation, the flashlight requires no elastomeric rings to provide a secure grip, and the head-first/tail-first holster design for *Puckett*'s flashlight can be elegantly simple and sturdy.



Above: SureFire Z2, 5" long

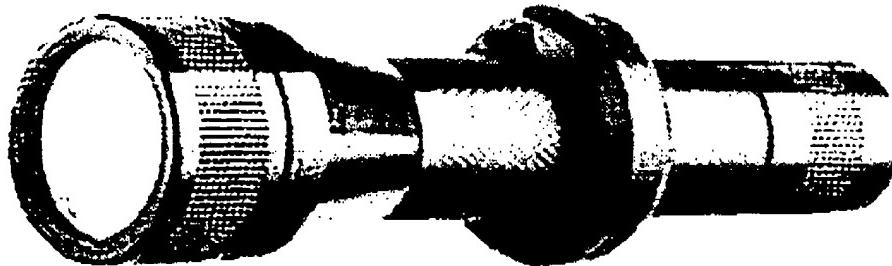
- (2) Another manufacturer has essentially duplicated the *Matthews* grip enhancement by machining a scalloped circular flange on the flashlight body (see BlackHawk Night Ops illustration below). This eliminates the problem of degradable add-on rings, but produces a flashlight that cannot easily be holstered both head-first and tail-first, cannot be carried comfortably in many pants pockets, and which can cause injury if the user falls on it.



Above: BlackHawk NightOps, 6.2" long

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- (3) Another method of enhancing the ability to hold onto small flashlights is similar to *Matthews*. Here, a large single elastomeric ring is placed around a constant-diameter small flashlight body, so that it is movable up and down the body (see Streamlight NF2 illustration below). This solution also provides a good grip on such a small instrument, but is awkward-looking and causes obvious holstering problems, in addition to the same negative attribute of needing a degradable add-on component.



Above: Streamlight NF2, about 5" long

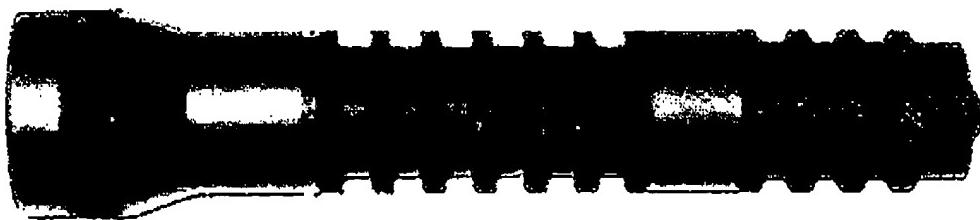
- (4) Another method of enhancing the ability to hold onto small flashlights, used by this same manufacturer, is to add on a "sticky" or "grabby" elastomer surface over the body of a small flashlight (see Streamlight Scorpion illustration below). This has drawbacks: due to that same rubbery surface, the flashlight tends to hang up in a pocket when trying to withdraw it, and it cannot be easily holstered tail-first.



Above: Streamlight Scorpion, 5" long

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- (5) Another method of enhancing the ability to hold onto small flashlights is to machine deep grooves, with additional heavy knurling, into the body of the flashlight (see Laser Devices Handheld illustration below). This provides a very secure grip, but the flashlight's extremely rough surface causes damage to holsters and cannot be slid into and out of the pockets of normal clothing without causing damage to that clothing.



Above: Laser Devices Handheld, 5.25" long

- (6) Another manufacturer does away with the enlarged head and tail completely, thus providing a flashlight that can be pocketed easily, and holstered head-first or tail-first (see Inova T2 illustration below). This manufacturer attempts to provide a more secure grip by engraving the surface of the flashlight with a fine, beveled grid pattern (see photo below). While the grid pattern largely eliminates the sawing and abrasive quality of example #4 above, it can be seen that, with this small flashlight, a slight diminishment in grip pressure (especially if the user is wearing a glove) can allow it to slide out of the hand, either headfirst or tail-first, with nothing to halt its progress (though, as is typical with small flashlights because they are easy to drop, a wrist lanyard is available).



APPLICANT PUCKETT'S INNOVATION AND CLAIMS

Regarding applicant *Puckett's* design and claims, it is not merely a question of the head and tail being at least 25% larger in diameter than the body size of the flashlight, which is prior art on flashlights. It is the *diameter, shape, and configuration* of the enlarged head and tail sections *with respect to the flashlight body* that is innovative, unique, and

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extremely desirable. *Puckett's* design results in (1) a flashlight with a *uniquely secure gripping area*, and (2) a flashlight that can be *securely* and *completely* holstered either *head-first or tail-first* in a strong and elegantly simple holster made of high-strength, non-degradable polymer as opposed to fabric or leather.

Specifically, *Puckett's* design calls for:

- The flashlight's enlarged head and tail sections to be separated by a length of flashlight barrel (body) that is approximately as wide as three average human fingers (2.0") and no wider than the four fingers of an average bare human hand when such fingers are pressed together sideways (3.0" maximum).
- The flashlight's enlarged head and tail sections to have inner edges that are slightly tapered or rounded, which causes the fingers of the gripping hand to be rolled or wedged inward, toward one another, which causes an automatic *tightening* and *locking* of the user's fingers on the flashlight.
- The flashlight's enlarged head and tail sections to be *the same diameter*. This produces a flashlight that can be holstered *head-first or tail first* without needing a holster of complex design in which the flashlight cannot be completely holstered both *head-first and tailfirst*, such as Matthews 5,593,074.

Puckett's design produces:

- A flashlight that, when gripped by the human hand — even a gloved hand — causes the fingers of the gripping hand to be rolled or wedged inward toward one another, which causes an automatic *tightening* and *locking* of the user's fingers on the flashlight.
- A flashlight producing the above locking effect without resorting to add-on surface material, elastomeric rings, no machined projecting flanges, and no machined knurling (though knurling can be added to the midsection for esthetic reasons).
- A flashlight that needs no knurling, added-on surface material, special rings, or projecting flanges, and therefore:
 - (1) can be *holstered securely head-first or tail-first*
 - (2) can be mechanically locked into the holster by utilizing the difference in head and body size;
 - (3) can be holstered with the same amount of flashlight projecting from the holster;
 - (4) can be easily slid in and out of a pocket without grabbing or catching the pants material.
 - (5) can be comfortably carried in a pocket, or even against bare skin, because all edges of its exterior can be smooth and rounded.

Applicant *Puckett*, who is well-versed in the art of flashlight use and design, suggests that if such an design idea were obvious, it would have been done previously.

Regarding the patent references cited in the Office Action:

- (1) *St. Claire* makes no mention, in any part of the patent document, of an enlarged head or tail section, nor of holstering. Nor are such features necessary to embody

the innovation of *St. Claire*, which has as its main focus the use of LEDs rather than conventional tungsten filament light bulbs as a light source

- (2) *Frick* makes no mention, in any part of the patent document, of an enlarged head or tail section, other than calling the head of the flashlight the "bell", which implies enlargement. However, head enlargement is not necessary in order to embody the innovation of *Frick*, which has as its main focus water- and shock-proofing of the flashlight.
- (3) *Abel* and *Wisenbaker* do depict an enlarged tailcap, and *Wisenbaker* does claim a benefit regarding holding onto the flashlight. *Wisenbaker* says in its DETAILED DESCRIPTION OF A SPECIFIC EMBODIMENT: "Another refinement is the slight taper given to cap 17 to lessen the probability of the flashlight slipping out of the hand." But such a taper is obvious in this application: it makes the flashlight "feel" better to the hand that slides down against the enlarged tail section. Furthermore, enlarging the tail section of such a long and heavy hand-held device is obvious: for example, baseball bats have had such knobs on the end for over 150 years. Furthermore, *Wisenbaker* makes no mention at all of the enlarged tailcap in its claims, probably because an enlarged tailcap is *not necessary* to the embodiment of the rotary switching device, which is the main focus of the *Wisenbaker* patent.
- (4) The *Matthews* flashlight patent, (5,642,932) does not claim a flashlight with an enlarged head or tailcap to enhance the grip. Rather it claims a *reduced* battery barrel, which provides a means of securing in place an elastomeric ring that enhances gripping the light. There are no claims regarding a holster for this flashlight.